

REMARKS

Claims 1-50 are pending in this application. Claim 38 is allowed; and claims 1-37 and 39-49 are rejected. Claims 1 and 5 are amended hereby. Claim 50 is added hereby.

Responsive to the rejection of claims 1-7, 28-34 and 42-49 under 35 U.S.C. § 103(a), as obvious by U.S. Patent No. 6,379,503 (Jansson), Applicants have amended claims 1 and 5, and submit that claims 1-7, 28-34 and 42-49 are now in condition for allowance.

Jansson '503 discloses suction devices 7, 10, 11 (Figs. 1-4) including two elongated stable support bodies 20, 21, forming the side walls of the suction device and defining between them vacuum chamber 22, and two elongated, ledge-shaped wear bodies 23, 24, having a free wear surface 13, 14, with which movable clothing 4, 8 is in sliding contact (column 5, lines 47-53). Wear ledges 23, 24 have a continuous T-shaped mounting track or groove 28 extending in the cross-machine direction between the two ends of wear ledges 23, 24 and consisting of an inner groove part 29 and an outer groove part 30, opening in the direction towards support body 20, 21, inner groove part 29 being wider than outer groove part 30 (column 5, line 63 through column 6, line 2). Locking bar 31 and press bar 45 are connected to each other by way of a plurality of connecting elements 50 to create a unit which is movable and displaceable in parallel relative to support body 20, 21 (column 6, lines 57-60). Expandable hose 47, which forms part of a mounting device, is arranged in inner cavity part 49 so as, when activated, to press against press bar 45 with a force that is greater than the combined spring force of spring washers 58 such that the wear ledge is displaced away from support body 20, 21 (column 7, lines 25-30).

In contrast, claim 1, as amended, recites in part:

interlocking said shaped part and said support piece, said shaped part having at least one shaped part angled surface, said at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction, said support piece having at least one support piece angled surface, said at least one support piece

angled surface both nonparallel and nonperpendicular to the machine direction; providing a clamping device in contact with each of said at least one shaped part angled surface and said at least one support piece angled surface; . . .

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Jansson '503, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Jansson '503 discloses an expandable hose between a press bar and a support body. Referring to Fig. 3 of Jansson '503, the surfaces of the press bar and support body, which are in contact with the expandable hose, are either parallel or perpendicular to the machine direction. However, Jansson '503 fails to disclose or suggest at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction and at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; and providing a clamping device in contact with each of at least one shaped part angled surface and at least one support piece angled surface. With the clamping device of the present invention incident on an angled surface as in Fig. 1, for example, the clamping will be normal to the angled surface and will therefore have a component in both the machine direction and orthogonal to the machine direction as viewed in cross-section.

The present invention as set forth by amended claim 1 has distinct advantages over Jansson '503 and the other cited references. An advantage of the present invention over the cited prior art is a more efficient and reliable design with fewer parts. Another advantage of the present invention is two parts are clamped to each other by a clamping device so that an operating tolerance is vastly or totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts (support

piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a “softer” and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 1, and claims 2-4 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In further contrast, claim 5, as amended, recites in part:

a first unit having a shaped part . . . displaying a part contour . . . , said part contour including at least one shaped part angled surface, said at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction; a support piece . . . having a piece contour . . . , said piece contour including at least one support piece angled surface, said at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; and at least one clamping device operatively positioned and in contact with each of said at least one shaped part angled surface and said at least one support piece angled surface. .

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Jansson ‘503, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Jansson ‘503 discloses an expandable hose between a press bar and a support body. Referring to Fig. 3 of Jansson ‘503, the surfaces of the press bar and support body, which are in contact with the expandable hose, are either parallel or perpendicular to the machine direction. However, Jansson ‘503 fails to disclose or suggest at least one shaped part angled surface both

nonparallel and nonperpendicular to the machine direction; at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; and at least one clamping device operatively positioned and in contact with each of at least one shaped part angled surface and at least one support piece angled surface. With the clamping device of the present invention incident on an angled surface as in Fig. 1, for example, the clamping will be normal to the angled surface and will therefore have a component in both the machine direction and orthogonal to the machine direction as viewed in cross-section.

The present invention as set forth by amended claim 5 has distinct advantages over Jansson '503 and the other cited references. An advantage of the present invention over the cited prior art is a more efficient and reliable design with fewer parts. Another advantage of the present invention is two parts are clamped to each other by a clamping device so that an operating tolerance is vastly or totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts (support piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a "softer" and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 5, and claims 6, 7, 28-34 and 42-49 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 1-24, 26-37 and 39-49 under 35 U.S.C. § 103(a), as obvious by U.S. Patent No. 5,486,270 (Schiel) or U.S. Patent No. 4,559,105 (Sennett et al.) or U.S. Patent No. 3,953,284 (Evalahti) or U.S. Patent No. 3,576,716 (Reynolds et al.), Applicants have amended claims 1 and 5, and submit that claims 1-24, 26-37 and 39-49 are now in condition for allowance.

Schiel '270 discloses cover strip 10 (Fig. 1) including movable support shape 11 and, arranged on it, foil strip 12 made of a hard material (column 2, lines 35-37). Located between shanks 11a, 11b of support shape 11 is a stationary backing shape 13 which is rigidly joined to beam 1 (column 2, lines 50-53). Provided between the top side of the backing shape and the underside of the support shape is a compression device in the form of an interposed hose 30 to which internal pressure is supplied, or in the form of spring elements 30a in recesses 30b, the respective hose or spring elements ensuring that the matching surfaces of wedge-shaped parts 31,32 will extend on each other without play (column 3, lines 14-20).

Sennett et al. '105 disclose foil blade assembly 10 (Fig. 1) including foil blade 17 having recess 17a on its lower surface for aiding in mounting it on holder 18 (column 3, lines 3-4). Holder 18 is carried on mount 19 which is supported on frame 27 (column 3, lines 4-5). Holder assembly 18 has upper holder 19 with upper projecting portion 19a which seats in recess 17a in the blade (column 3, lines 10-12). The blade is cemented or otherwise secured to part 19a of the holder such as by silicon rubber 20 (column 3, lines 12-14). The mount is suitably secured to frame 27 such as by having downwardly extending openings at intervals through which screws 26

extend threaded into the frame and securing the mount rigidly on the frame (column 3, lines 37-40). Mount 29 is provided with a continuous center groove or slot having side walls 23 and 29b, in which is seated inflatable member 24 having integral central projection 24a engaging the lower surface of lower part 22 of the holder assembly (column 3, lines 47-49 and column 3, lines 53-54).

Evalahti '284 discloses (Fig. 1) water removal blade 1, U-bar 2 and rail 3 with a T-shaped cross section, of which the horizontal flanges extend over flanges 5 of the water removal blade and the waist part of which extends downwards inside the U-bar 2 (column 2, lines 55-60). T-rail 3, which works as a locking part, has been connected operationally to the U-bar by means of a lever arm system, including lever arms 7 (column 3, lines 61-63). In Fig. 5 the T-rail, which works as a locking member, is stationary and on both sides its lower part has grooves 21 in which have been fitted resilient tubes 22, which have been connected to a pressure medium source (not shown) and which, when under pressure, press flanges 5 of water removal blade 1 fitted on top of T-shaped rail 3 upwards against the horizontal flanges of the T-rail, whereby the blade stays firmly in place (column 3, lines 19-29).

Reynolds et al. '716 disclose foil support assembly 5 (Fig.2) including support member 10, foil body 14, and a replacable foil cap 16 having a leading knife-edge 11 (column 2, lines 58-61). Foil cap 16 is attached to foil body 14 by a dovetail tongue and groove type joint (column 2, lines 68-69). Groove 35 is defined in body 14 and open in a direction facing clamp bar 26 (column 3, lines 21-22). Groove 35 is arranged below the level of screws 27 and extends parallel to leading edge 11 (column 3, lines 22-24). A collapsible-inflatable tube 36 is arranged within slot 35 and connected to a suitable adjustable source of fluid pressure (not shown) for providing selected

positive pressure or negative pressure (i.e. drain) to inflate or collapse tube 36 (column 3, lines 24-28).

In contrast, claim 1, as amended, recites in part:

interlocking said shaped part and said support piece, said shaped part having at least one shaped part angled surface, said at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction, said support piece having at least one support piece angled surface, said at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; providing a clamping device in contact with each of said at least one shaped part angled surface and said at least one support piece angled surface; . . .

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Schiel '270, Sennett et al. '105, Evalahti '284 or Reynolds et al. '716, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Schiel '270 discloses an interposed hose in contact with a movable support shape surface and a stationary backing shape surface, both surfaces being parallel to the machine direction. Sennett et al. '105 disclose a seated inflatable member in contact with a mount and a lower part of the holder assembly. Referring to Fig. 1 of Sennett et al. '105, the surfaces of the mount and holder, which are in contact with the inflatable member, are either parallel or perpendicular to the machine direction. Evalahti '284 discloses resilient tubes in contact with a surface of a water removal blade and surfaces of a rail, all surfaces either perpendicular or parallel to the machine direction. Reynolds et al. '716 disclose a tube in contact with a foil body and a clamp bar. Referring to Fig. 2 of Reynolds et al. '716, a tube is in contact with a foil body and a clamp bar, the clamp holding the foil cap (wear part) to the foil body, whereas support member 10 does not contact the tube. However, Schiel '270, Sennett et al. '105, Evalahti '284 or Reynolds et al. '716 fail to disclose or suggest at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction and the at least one support piece angled surface both

nonparallel and nonperpendicular to the machine direction; providing a clamping device in contact with each of at least one shaped part angled surface and at least one support piece angled surface. With the clamping device of the present invention incident on an angled surface as in Fig. 1, for example, the clamping will be normal to the angled surface and will therefore have a component in both the machine direction and orthogonal to the machine direction as viewed in cross-section.

The present invention as set forth by amended claim 1 has distinct advantages over Schiel '270, Sennett et al. '105, Evalahti '284 or Reynolds et al. '716 and the other cited references. An advantage of the present invention over the cited prior art is a more efficient and reliable design with fewer parts. Another advantage of the present invention is two parts are clamped to each other by a clamping device so that an operating tolerance is vastly or totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts (support piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a "softer" and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 1, and claims 2-4 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In further contrast, claim 5, as amended, recites in part:

a first unit having a shaped part . . . displaying a part contour . . . , said part contour including at least one shaped part angled surface, said at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction; a support piece . . . having a piece contour . . . , said piece contour including at least one support piece angled surface, said at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; and at least one clamping device operatively positioned and in contact with each of said at least one shaped part angled surface and said at least one support piece angled surface. .

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Schiel '270, Sennett et al. '105, Evalahti '284 or Reynolds et al. '716, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Schiel '270 discloses an interposed hose in contact with a movable support shape surface and a stationary backing shape surface, both surfaces being parallel to the machine direction. Sennett et al. '105 disclose a seated inflatable member in contact with a mount and a lower part of the holder assembly. Referring to Fig. 1 of Sennett et al. '105, the surfaces of the mount and holder, which are in contact with the inflatable member, are either parallel or perpendicular to the machine direction. Evalahti '284 discloses resilient tubes in contact with a surface of a water removal blade and surfaces of a rail, all surfaces either perpendicular or parallel to the machine direction. Reynolds et al. '716 disclose a tube in contact with a foil body and a clamp bar. Referring to Fig. 2 of Reynolds et al. '716, a tube is in contact with a foil body and a clamp bar, the clamp holding the foil cap (wear part) to the foil body, whereas support member 10 does not contact the tube. However, Schiel '270, Sennett et al. '105, Evalahti '284 or Reynolds et al. '716 fail to disclose or suggest at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction and at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; and at least one clamping device

operatively positioned and in contact with each of at least one shaped part angled surface and at least one support piece angled surface. With the clamping device of the present invention incident on an angled surface as in Fig. 1, for example, the clamping will be normal to the angled surface and will therefore have a component in both the machine direction and orthogonal to the machine direction as viewed in cross-section.

The present invention as set forth by amended claim 5 has distinct advantages over Schiel '270, Sennett et al. '105, Evalahti '284 or Reynolds et al. '716 and the other cited references. An advantage of the present invention over the cited prior art is a more efficient and reliable design with fewer parts. Another advantage of the present invention is two parts are clamped to each other by a clamping device so that an operating tolerance is vastly or totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts (support piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a "softer" and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 5, and claims 6-24, 26-37 and 39-49 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 1-37 and 39-49 under 35 U.S.C. § 103(a), as obvious by German Patent No. DE 4,319,311 (Goldman et al.), Applicants have amended claims 1 and 5, and submit that claims 1-37 and 39-49 are now in condition for allowance.

Goldman et al. '311 disclose a shaped part 2 (Figs. 1-3b), a **wear part 1** and an element 3 or 4 therebetween.

In contrast, claim 1, as amended, recites in part:

interlocking said shaped part and said support piece, said shaped part having at least one shaped part angled surface, said at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction, said support piece having at least one support piece angled surface, said at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; providing a clamping device in contact with each of said at least one shaped part angled surface and said at least one support piece angled surface; . . .

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Goldman et al. '311, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Goldman et al. '311 disclose an element in contact with a shaped part and a **wear part**. However, Goldman et al. '311 fails to disclose or suggest providing a clamping device in contact with each of at least one shaped part angled surface and at least one support piece angled surface.

The present invention as set forth by amended claim 1 has distinct advantages over Goldman et al. '311 and the other cited references. An advantage of the present invention over the cited prior art is a more efficient and reliable design with fewer parts. Another advantage of the present invention is two parts are clamped to each other by a clamping device so that an operating tolerance is vastly or totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts

(support piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a "softer" and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 1, and claims 2-4 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In further contrast, claim 5, as amended, recites in part:

a first unit having a shaped part . . . displaying a part contour . . . , said part contour including at least one shaped part angled surface, said at least one shaped part angled surface both nonparallel and nonperpendicular to the machine direction; a support piece . . . having a piece contour . . . , said piece contour including at least one support piece angled surface, said at least one support piece angled surface both nonparallel and nonperpendicular to the machine direction; and at least one clamping device operatively positioned and in contact with each of said at least one shaped part angled surface and said at least one support piece angled surface.

(Emphasis added). Applicant submits that such an invention is neither taught, disclosed nor suggested by Goldman et al. '311, or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

Goldman et al. '311 disclose an element in contact with a shaped part and a **wear part**. However, Goldman et al. '311 fails to disclose or suggest providing a clamping device in contact with each of at least one shaped part angled surface and at least one support piece angled surface.

The present invention as set forth by amended claim 5 has distinct advantages over Goldman et al. '311 and the other cited references. An advantage of the present invention over the cited prior art is a more efficient and reliable design with fewer parts. Another advantage of the present invention is two parts are clamped to each other by a clamping device so that an operating tolerance is vastly or totally eliminated based on manufacturing tolerances. Another advantage of the present invention is a quick and non-destructive change-over of the shaped part is possible. Yet another advantage of the present invention is a common sealing of the two parts (support piece and shaped part) by the clamping device on the one hand and a positive locking of the two parts on the other hand provides that neither fiber-loaded nor dirt-loaded processing water can penetrate between them. A further advantage of the present invention is this type of clamping provides an excellent way of realizing the advantages of increased effective operating time, a defined and constant dewatering geometry and low change-over times. A yet further advantage of the present invention is clamping is achieved by the clamping device in a manner whereby vibrations are eliminated and the clamping becomes oscillation damping, whereby a "softer" and low-noise machine operation is achieved.

For all of the foregoing reasons, Applicants submit that claim 5, and claims 6-37 and 39-49 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Applicants have amended the drawings to include reference characters for shaped part angled surface 31, support piece angled surface 32 and other root face 33. This structure is shown in the drawings as originally filed therefore no new matter has been added to the application as originally filed.

Applicants have amended the specification to reference shaped part angled surface 31, support piece angled surface 32 and other root face 33. This structure is shown in the drawings as originally filed therefore no new matter has been added to the application as originally filed.

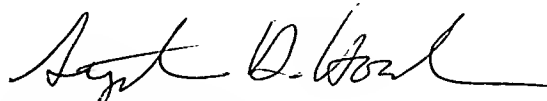
Applicants have added claim 50 to further protect the patentable subject matter of the present invention. Specifically, claim 50 is directed to the embodiment of Fig. 14 and recites in part the support piece having a T-rib with an outside contour having a first side with a first root face and a second side with a second root face, the second root face shorter than the first root face; and at least one clamping device operatively positioned and in contact with both the part contour and the second side. This structure is shown in the drawings as originally filed therefore no new matter has been added to the application as originally filed. For all of the foregoing reasons, Applicants submit that claim 50 is now in condition for allowance, which is hereby respectfully requested.

For the foregoing reasons, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorizes that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,



Stephen D. Horchem
Registration No. 53,035

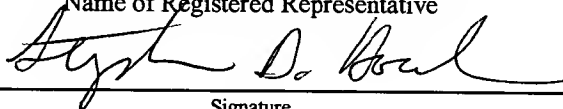
Agent for Applicant

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: September 4, 2003.

Stephen D. Horchem, Reg. No. 53,035

Name of Registered Representative



Signature

September 4, 2003

Date

SDH/dc

TAYLOR & AUST, P.C.
142 S. Main Street
P.O. Box 560
Avilla, IN 46710
Telephone: 260-897-3400
Facsimile: 260-897-9300

Enc.: Return postcard